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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/499,951	02/08/2000	TATSUO J. CHIGIRA	B208-1076	1936

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EXAMINER

NGUYEN, KEVIN M

ART UNIT PAPER NUMBER

2674

DATE MAILED: 12/04/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/499,951

Applicant(s)

CHIGIRA, TATSUO J.

Examiner

Kevin M. Nguyen

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 February 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-10 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All   b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al hereinafter Fan (US 5,815,126) in view of Saikawa et al hereinafter Saikawa (US 5,986,813).

4. As to claim 1, Fan teaches a head mounted display (HMD) apparatus 1 which includes front section 15 (front frame), side frame 32 L and 32 R, the hinge 31 L and 31 R, Attached to each side of the head mounted display body 12 is a stem 30 through a respective forward hinge 31. Each stem contains a forward stem section 32, which is coupled to the forward hinge 31 at the proximal end. In a particular preferred

embodiment, the forward stem section 32 contains a rear hinge 33 at the distal end and an earphone storage compartment 37 into which earphones 40 are stowed when the stems are folded (see col. 6, lines 54-61). Therefore, Fan teaches all of the claimed limitation of claim 1, except for "said head mounted display apparatus being capable of being mounted and held on the head of user with an elastic force generated by spreading said side frame." However, Saikawa teaches a related HMD 1 which includes frame section 1b to the body section 1a to a side head section behind an ear and including a plate spring being an elastic member and others to serve as a supporting section and a side head pressing section (see col. 6, lines 15-18). It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the additional elastic member taught by Saikawa in the HDM of Fan's system because this would allow user to wear the HDM more comfortable and light weight (see col. 3, lines 16-18 of Saikawa).

5. As to claim 2, Fan teaches an earphone storage compartment 37 into which earphones 40 are stowed when the stems are folded (see col. 6, lines 59-61).

6. As to claim 3, Fan teaches inherently the compartment 37 which hold a cable 320 connected to display channel part (see col. 7, lines 47-67).

7. As to claim 4, Fan teaches FIG. 6 is a top plan view of the head mounted display 1 in the folded configuration. In particular, note that the nose bridge assembly 24 has been positioned into the retracted position for storage. In the retracted position, the nose bridge assembly 24 does not interfere with the folding of the stems 30. The hinge

points 39 on the forward joints 31 are spring tensioned to facilitate head rotation (see col. 9, lines 56-62).

8. Claims 5 and 6 are allowed.

9. Claims 7-10 are allowed.

10. Claims 1-4 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki (US 5,880,773) in view of Saikawa et al hereinafter Saikawa (US 5,986,813).

As to claim 1, Suzuki teaches, referring to Fig. 1, a HMD 1 which includes a housing 5 (front frame), the side cases 6 and 7 (side frame), the earphone 9 attached to the side cases 6 and 7 (see col. 3, line 10). Therefore, Suzuki teaches all of the claimed limitations of claim 1, except for "said head mounted display apparatus being capable of being mounted and held on the head of user with an elastic force generated by spreading said side frame." However, Saikawa teaches a related HMD 1 which includes frame section 1b to the body section 1a to a side head section behind an ear and including a plate spring being an elastic member and others to serve as a supporting section and a side head pressing section (see col. 6, lines 15-18). It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the auxiliary support elastic member taught by Saikawa in the HMD of Suzuki's system because this would allow user to wear the HDM more comfortable and light weight.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Kevin M. Nguyen** whose telephone number is **703-305-6209**. The examiner can normally be reached on M-F (9:00-5:00), with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe** can be reached on **703-305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

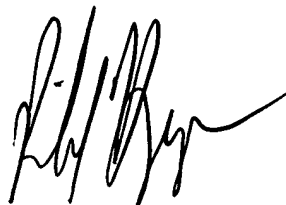
**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kevin M. Nguyen  
Examiner  
Art Unit 2674

KN  
November 28, 2001



**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**